

PCT09

RAW SEQUENCE LISTING DATE: 02/13/2002 PATENT APPLICATION: US/09/830,837 TIME: 10:05:13

Input Set : A:\EP.txt

Output Set: N:\CRF3\02132002\1830837.raw

```
3 <110> APPLICANT: Institut de Recherches Cliniques de Montreal
 4
         SEIDAH, Nabil
                                                                      Does Not Comply
 5
         CHRETIEN, Michel
                                                                  Corrected Diskette Needed
 6
         MARCINKIEWICZ, Mieczyslaw
 7
         LAAKSONEN, Reijo
         DAVIGNON, Jean
 8
10 <120> TITLE OF INVENTION: MAMMALIAN SUBTILISIN/KEXIN ISOZYME SKI-1: A PROPROTEIN
         CONVERTASE WITH A UNIQUE CLEAVAGE SPECIFICITY
13 <130> FILE REFERENCE: IRCM
15 <140> CURRENT APPLICATION NUMBER: US/09/830,837
16 <141> CURRENT FILING DATE: 2001-10-18
18 <150> PRIOR APPLICATION NUMBER: CA 2,249,648
19 <151> PRIOR FILING DATE: 1998-11-04
21 <160> NUMBER OF SEQ ID NOS: 76
23 <170> SOFTWARE: PatentIn Ver. 2.1
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)> SI														
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	Glu	Val	Asp	Asn	~	Arg	Ile	Ile	Pro	_	Asn	Asn	Pro	Ser		Asp
348		_	_	_	85		_			90	_		_		95	
	Tyr	Pro	Ser	~	Phe	Glu	Val	Ile		He	Lys	Glu	Lys		Lys	Ala
351				100			_		105	_		_		110		_
	Gly	Leu		Thr	Leu	Glu	Asp		Pro	Asn	Ile	Lys	-	Val	Thr	Pro
354		_	115			_	_	120					125	_	_	
	GIn	_	Lys	Val	Phe	Arg	Ser	Leu	Lys	Phe	Ala		Ser	Asp	Pro	ITe
357		130	_	_	~ 1	-1	135	_	_	a 3	_	140	- 1	_	_	_
359	val	Pro	Cys	Asn	Glu	Thr	Arg	Trp	ser	GIn	rās	Trp	GIn	ser	ser	Arg

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372	•	210			_		215	_				220	_			
	His	Pro	His	Phe	Lys		Va⊥	Lys	Glu	Arg		Asn	Trp	Thr	Asn	
	225	m1	T	•	3	230	T	a 1	***	01	235	D 1	**- 1	. 1 -	01	240
	Arg	Thr	Leu	Asp		GIY	Leu	GIY	HIS	_	Thr	Pne	vaı	Ата		vaı
378	т1.	3 1 -	C	Wa.L	245	01	O	G1 =	a 1	250	*1-	D	3	31-	255	т
	Ile	Ald	ser	мес 260	Arg	GIU	Cys	GIII	265	Pne	Ата	Pro	ASP	270	GIU	ьeu
381	His	т1 о	Dho		17a 1	Dho	Πh∽	N a n		Cln	1751	Cor	Птт.		Cor	T ren
384	HIS	TTE	275	AIG	vai	Pile	THE	280	ASII	GTII	val	ser	285	TILL	ser	irb
	Phe	T (2) 1		λla	Dho	λan	Тттг		Tlo	T All	T v.c	Tvc		λαη	Wa 1	LOU
387	Pile	290	ASP	нта	FIIE	ASII	295	нта	116	ьeu	_	300	Mec	ASP	vaı	Leu
	Asn		Sor	Tle	Glv	Glv		Aen	Dho	Mot'			Pro	Dho	Va 1	Δen
	305	цса	JCI	110	GLY	310	110	тор	1 110	HCC	315	1113	110	1110	Vul	320
	Lys	Val	Trp	Glu	Leu		Ala	Asn	Asn	Val		Met	Va 1	Ser	Δla	
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	Gly	Asn	Asp	Glv		Leu	Tvr	Glv	Thr		Asn	Asn	Pro	Ala		Gln
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	Ser		Arg	Arg	Leu	Pro	_	Val	Asn	Met	Phe		Gln	Gly	His	Gly
417	_	450	_	_	_	_	455		~1		_	460	-	_	_	_
	Lys	Leu	Asp	Leu			Ala	Tyr	GIn	ITe		Ser	Ser	Tyr	Lys	
	465	. 1 -	G	.		470	G	m	- 1-		475	m1	a 1	a	D	480
	Gln	Ата	ser	Leu		Pro	ser	Tyr	TTE	-	Leu	Thr	GIU	Cys		Tyr
423	Wat	Пии	Dwa	(T)====	485	a	C1 -	D-20	т1.	490	m	61	al	Wat.	495	mh as
	Met	тгр	Pro		Cys	ser	GIU	Pro	505	Tyr	Tyr	GTA	GTA		Pro	Thr
426	Ile	Wa 1	λαη	500 Val	Th∽	Tla	Lon	λαη		Mo+	C1	V = 1	πh∽	510	λνα	Tla
429	TTG	vaı	515	val	TIIT	TTE	ьeu	520	GTĀ	Met	GTA	val	525	атй	мту	тте
	Val	Δen		Pro	Glu	Trn	Δτα		ጥህን	Len	Dro	Gln		G1 17	Δεή	Δen
432	ү ад	530	цyз	-10	GIU	11P	535	110	T A T	Leu	F T O	540	USII	ату	vah	vaii
7 7 4		220										240				

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441 443	Thr	Glu		580 Lys	Asn	Gly	Ala		585 His	Thr	Ser			590 Lys	Leu	Pro
444			595	_	-1.	~ 1 -	T	600	D	D	3		605	3	17 a 1	T 011
447		610					Pro 615					620	•			
449 450	_	Asp	Gln	Tyr	His	Asn 630	Leu	Arg	Tyr	Pro	Pro 635	Gly	Tyr	Phe	Pro	Arg 640
452 453	Asp	Asn	Leu	Arg	Met 645	Lys	Asn	Asp	Pro	Leu 650	Asp	Trp	Asn	Gly	Asp 655	His
455	Val	His	Thr	Asn 660		Arg	Asp	Met	Tyr 665		His	Leu	Arg	Ser 670		Gly
456 458	Tvr	Phe	Val		Val	Leu	Gly	Ala		Phe	Thr	Cys	Phe		Ala	Thr
459	-		675				_	680					685			
461 462	Gln	Tyr 690	Gly	Thr	Leu	Leu	Met 695	Val	Asp	Ser	Glu	Glu 700	Glu	Tyr	Phe	Pro
	Glu		Ile	Ala	Lys	Leu	Arg	Arg	Asp	Val	Asp		Gly	Leu	Ser	Leu
465						710					715					720
468					725		Tyr			730					735	
470 471	Phe	Tyr	Asp	Glu 740	Asn	Thr	Arg	Gln	Trp 745	Trp	Met	Pro	Asp	Thr 750	Gly	Gly
473 474	Ala	Asn	Val 755	Pro	Ala	Leu	Asn	Glu 760	Leu	Leu	Ser	Val	Trp 765	Asn	Met	Gly
	Phe	Ser		Gly	Leu	Tyr	Glu		Glu	Phe	Ala	Leu		Asn	His	Asp
477		770			_		775	_	1			780		a 1	.	a 1
	Met 785	Tyr	Tyr	Ala	Ser	790	Cys	ser	TTE	АТа	795	Pne	PIO	GIU	Asp	800
	Val	Val	Ile	Thr		Thr	Phe	Lys	Asp		Gly	Leu	Glu	Val		Lys
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489 491	Cvs	Leu	835 Asp	Asp	Ser	His	Arg		Lvs	Asp	Cvs	Phe		Leu	Leu	Asp
492	_	850					855					860				
		Leu	Leu	Gln	Tyr		Ser	Tyr	Gly	Val		Pro	Pro	Ser	Leu	
	865	Cor	C117) an	7 ~~	870	Arg	Dro	Dro	Sor	875	λla	Clv	LAu	Δla	880 Pro
497	птѕ	ser	GIŢ	ASII	885	GIII	AIG	PIO	PIO	890		AIG	GLY	пец	895	110
	Pro	Glu	Arg	Met		Gly	Asn	His	Leu			Tyr	Ser	Lys	Val	Leu
501				900					905					910		
	Glu	Ala		Leu	Gly		Pro		Pro	Arg		Leu		Ala	Cys	Pro
504	17.2 -	T	915		7 1 -	. ·	D	920	D	T ~··	A an	C1	925	71~	D ====	eo~
206	H1S	ьeu	ser	тrр	АТа	ьys	Pro	GTU	PLO	ьeu	ASII	GIU	TIII	нта	PLO	Set

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                            950
                                                955
    512 Val Leu Pro Asn Phe Arg Ser Asn Arg Pro Gln Val Arg Pro Leu Ser
                        965
                                            970
    515 Pro Gly Glu Ser Gly Ala Trp Asp Ile Pro Gly Gly Ile Met Pro Gly
                   980
                                       985
    518 Arg Tyr Asn Gln Glu Val Gly Gln Thr Ile Pro Val Phe Ala Phe Leu
                                           1005
          995
                                  1000
    521 Gly Ala Met Val Ala Leu Ala Phe Phe Val Val Gln Ile Ser Lys Ala
                              1015
    524 Lys Ser Arg Pro Lys Arg Arg Pro Arg Ala Lys Arg Pro Gln Leu
E--> 525(025)/025 1030
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    528
                       1045
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    831 <212> TYPE: PRT
    832 <213> ORGANISM: Mus sp. \rho.
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    844 Ser Thr Val Val Glu Tyr Glu Tyr Ile Val Ala Phe Asn Gly Tyr Phe
             50
    847 Thr Ala Lys Ala Arg Asn Ser Phe Ile Ser Ser Ala Leu Lys Ser Ser
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    853 Tyr Pro Ser Asp Phe Glu Val Ile Gln Ile Lys Glu Lys Gln Lys Ala
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                    100
    856 Gly Leu Leu Thr Leu Glu Asp His Pro Asn Ile Lys Arg Val Thr Pro
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                                135
                                                   140
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    865 Pro Leu Lys Arg Ala Ser Leu Ser Leu Gly Ser Gly Phe Trp His Ala
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                                            170
    868 Thr Gly Arg His Ser Ser Arg Arg Leu Leu Arg Ala Ile Pro Arg Gln
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    874 Gly Ala Asn Val Arg Val Ala Val Phe Asp Thr Gly Leu Ser Glu Lys
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881	T1.	212	Cor	Mot	Ara	Glu	Cve	Gln	Glv		Ala	Pro	Asp	Ala	Glu	Leu
	TTE	Ala	ser		AIG	GIU	Cys	GIII	265	1110	211u	110		270		
884	÷		_,	260	••- 1	Dh a	mh m	7 an		Cln	Wa 1	Sar	ጥላፖ			Trp
	His	Ile		Arg	vai	Phe	Thr	ASII	ASII	GTII	Val	ser	285	1111	DCI	
887			275	_		_	_	280	T1.	т	T ***	TTTC		λeń	Val	Leu
889	Phe		Asp	Ala	Phe	Asn	Tyr	Ala	тте	Leu	гЛS	туз	Met	кэр	vu.	пса
890		290				_	295		_,			300	D-00	Dha	1751	N Cro
892	Asn	Leu	Ser	Ile	Gly	Gly	Pro	Asp	Phe	Met	Asp	HIS	PIO	Pile	Val	320
893	305					310					315		*** 1	0	3] a	
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898	Gly	Asn	Asp	Gly	Pro	Leu	Tyr	Gly	Thr	Leu	Asn	Asn	Pro	Ala	Asp	GIn
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ana	385					390					395					400
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911					405					410					413	
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016	T 170	λrα	c1u	T.011	Val	Asn	Pro	Ala	Ser	Val	Lys	Gln	Ala	Leu	Ile	Ala
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				AIG	пеп	· FIO	455	, 41	11011			460		•		_
920	T -	4.50	3.00	T 011	Tou	λνα		ጥህጉ	Gln	Tle	Leu			Tvr	Lys	Pro
			ASP	ьец	цец	470	AIU	1 Y 1		110	475			- 1	-	480
923	465	. 1 -	a	т	Con		cor	Trans	Tlo	Δsn			Glu	Cvs	Pro	Tyr
		Ата	ser	Lieu	485		261	- Y -	110	490	200			-1-	495	
926			D	m	405	Cor	Cln	Dro	т1Д			Glv	Glv	Met	Pro	Thr
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		val			Thr	тте	пеп	520	. Сту	Met	. Gry	, u _	525	011	9	
932	_	_	515	_	م ا		3 ~			TOU	Dro	Cln			Asn	Asn
				Pro	GIU	ттр			тат	цеи	. PIO	540	. ASI	. Ory	1101	Asn
935		530			_,	-	535			17-1	T ou			ψmn	Ser	Glv
			. Val	Ala	Phe			Sei	ser	Val	. Leu	ııp	PIO	, 115	DCI	Gly 560
938	545	1				550			m1		555		7.1.	Cor	n m	
		Leu	Ala	Ile			Ser	Val	Thr	глуз	глуз	нта	. АТа	ser	575	Glu
941					565					570			a	. D		
943	Gly	Ile	Ala			His	Ile	Met	: Ile	Thr	· Val	. Ala	ser	LO	, ата	Glu
944				580)				585	,				590	1	
946	Thr	Glu	Leu	His	Ser	Gly	Ala	. Glu	His	Thr	Ser	Thr	· Val	. гуз	Leu	Pro
947	,		595	;				600)				605)		
949	Ile	. Lys	val	Lys	: Ile	lle	Pro	Thr	Pro	Pro	Arg	Ser	Lys	Arg	[val	Leu
950		610					615					620)			

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95	2 Trp	Asp	Gln	${ t Tyr}$	His		Leu	Arg	Tyr	Pro	Pro	Gly	Tyr	Phe	Pro	Arg
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95	5 Asp	Asn	Leu	Arg	Met	Lys	Asn	Asp	Pro	Leu	Asp	${\tt Trp}$	Asn	Gly	Asp	His
95					645					650					655	
95	8 Val	His	Thr		Phe	Arg	Asp	Met	_	Gln	His	Leu	Arg		Met	Gly
95				660					665					670		
96	1 Tyr	Phe	Val	Glu	Val	Leu	Gly	Ala	Pro	Phe	Thr	Cys	Phe	Asp	Ala	Thr
96			675					680					685			
96	4 Gln	Tyr	Gly	Thr	Leu	Leu	Leu	Val	Asp	Ser	Glu	Glu	Glu	${\tt Tyr}$	Phe	Pro
96	5	690					695					700		•		
96	7 Glu	Glu	Ile	Ala	Lys	Leu	Arg	Arg	Asp	Val	Asp	Asn	Gly	Leu	Ser	Leu
	8 705					710					715					720
97	0 Val	Ile	Phe	Ser	Asp	Trp	Tyr	Asn	Thr	Ser	Val	Met	Arg	Lys	Val	Lys
97					725					730					735	
97	3 Phe	${ t Tyr}$	Asp		Asn	Thr	Arg	Gln	${\tt Trp}$	${\tt Trp}$	Met	Pro	Asp	Thr	Gly	Gly
97				740			,		745					750		.,
97	6 Ala	Asn	Ile	Pro	Ala	Leu	Asn	Glu	Leu	Leu	Ser	Val	Trp	Asn	Met	Gly
97			755					760					765			
97	9 Phe	Ser	Asp	Gly	Leu	Tyr	Glu	Gly	Glu	Phe	Val	Leu	Ala	Asn	His	Asp
98		770					775					780				
98	2 Met	Tyr	Tyr	Ala	Ser	Gly	Cys	Ser	Ile	Ala	Lys	Phe	Pro	Glu	Asp	Gly
	3 785					790					795					800
	5 Val	Val	Ile	${ t Thr}$	Gln	Thr	Phe	Lys	Asp		Gly	Leu	Glu	Val	Leu	Lys
98					805					810					815	
	8 Gln	Glu	Thr		Val	Val	Glu	Asn	Val	Pro	Ile	Leu	Gly		Tyr	Gln
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	15 Va	т гег	ı Pro) Asn			Ser	Asn	Arg			val	Arg	Pro		
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10:		_	_	980					985		_			990		_
	21 Ar	д Туг			Glu	Val	_					Val			Phe	Leu
10:			995					1000				۵,	1005		60	
Τ0;	24 G1	A ATS	a Met	. Val	Ala	Leu	Ala	Phe	Phe	val	val	GIn	ile	ser	. гля	Ala

RAW SEQUENCE LISTING

DATE: 02/13/2002 TIME: 10:05:13

PATENT APPLICATION: US/09/830,837

Input Set : A:\EP.txt
Output Set: N:\CRF3\02132002\1830837.raw

	1025	-	1010				- :	1015				:	1020					
	1027	Lys	Ser	Arg	Pro	Lys	Arg	Arg	Arg	Pro	Arg	Ala	Lys	Arg	Pro	Gln	Leu	
E>	1028	(ô25)	201	15			1030					L035				:	1040	
	1030				Ala	His	Pro	Ala	Arg	Thr	Pro	Ser	Val					
	1031					1045			_		1050							
	1350)> SI	EO II	ON C	: 6												
	1351																	
	1352									a								
	1353					Home	า รลเ	nien	. 0	7								
	1355						J 541	o I CII.	· 1.									
	1356						Tlo	Trn	Lou	Lou	Lou	T.Ou	Val	Va 1	Τ.Δ11	T.Au	Cve	
	1357	1	цуз	Leu	Val	5	116	115	neu	пец	10	пец	Val	Val	пец	15	Cys	
	1359		T a	T *** G	mi a	_	C1	7 an	7 ~~	T 011	-	Tvva	T	Cor	Dho		T 110	
		GTĀ	гуѕ	гуз		reu	СТА	ASP	AIG		GIU	гуу	_	261		GIU	гуѕ	
	1360	. 1 -	n	G	20	01	a	a	***	25	m1			77 7	30	nh -	G	
	1362	Ата	PLO	_	Pro	GTA	Cys	ser		ьeu	THE	ьeu	гуѕ		GIU	Pne	ser	
	1363	_	1	35		a 1	-	a 1	40	- 1	1		5 1	45	~ 1		D1	
	1365			Val.	vaı	GIU,	Tyr		Tyr	тте	val	Ala		Asn	GIY	Tyr	Pne	
•	1366		50					55			_	_	60	_	_	_	_	
	1368		Ala	Lys	Ala	Arg		Ser	Phe	Ile	Ser		Ala	Leu	Lys	Ser		
	1369						70					75					80	
	1371	Glu	Val	Asp	Asn	_	Arg	Ile	Ile	Pro	_	Asn	Asn	Pro	Ser		Asp	
	1372					85					90					95		
	1374	Tyr	Pro	Ser	_	Phe	Glu	Val	Ile		Ile	Lys	Glu	Lys	Gln	Lys	Ala	
	1375				100					105					110			
	1377	Gly	Leu	Leu	Thr	Leu	Glu	Asp	His	Pro	Asn	Ile	Lys	Arg	Val	Thr	Pro	
	1378			115					120					125				
	1380	Gln	Arg	Lys	Val	Phe	Arg	Ser	Leu	Lys	Tyr	Ala	Glu	Ser	Asp	Pro	Thr	
	1381		130					135					140					
	1383	Val	Pro	Cys	Asn	Glu	Thr	Arg	Trp	Ser	Gln	Lys	Trp	${\tt Gln}$	Ser	Ser	Arg	
	1384	145					150					155					160	
	1386	Pro	Leu	Arg	Arg	Ala	Ser	Leu	Ser	Leu	Gly	Ser	Gly	Phe	Trp	His	Ala	
	1387					165					170					175		
	1389	Thr	Gly	Arg	His	Ser	Ser	Arg	Arg	Leu	Leu	Arg	Ala	Ile	Pro	Arg	Gln	
	1390		_	_	180			_	_	185		_			190	-		
	1392	Val	Ala	Gln	Thr	Leu	Gln	Ala	Asp	Val	Leu	Trp	Gln	Met	Gly	Tyr	Thr	
	1393			195					200			-		205	_	-		
•	1395	Gly	Ala	Asn	Val	Arq	Val	Ala	Val	Phe	Asp	Thr	Gly	Leu	Ser	Glu	Lys	
	1396	•	210			_		215			-		220				-	
	1398	His		His	Phe	Lvs	Asn		Lvs	Glu	Ara	Thr	Asn	Trp	Thr	Asn	Glu	
	1399					-1-	230		-1-	:	5	235					240	
			Thr	Len	Asp	Asp		Leu	Glv	His	Glv		Phe	Val	Ala	Glv	Val .	
	1402	**** 9		200	1106	245	0 1 1		011		250					255	, 42	
	1404	Tlo	Δla	Sor	MΔ+		Glu	Cve	Gln	G1 v		Δla	Pro	Δen	Δla		Len	
	1405	110	111u	JUL	260	**** 9	U L U	CIS	O T 11	265	1 110	u	110	P	270	JIU		
	1407	Hic	Tla	Dho		Val	Dhe	Thr	Δen		Gl n	Va 1	Ser	ጥህን		Ser	ሞድኮ	
	1407	urp	116	275	лту	٧ат	FIIE	TIIT	280	LOII	GIII	var	DET	285	TIIT	OGI	111	
		Dha	T C''		λ 1 ¬	Dho	λαν	∰~		т1 ^	T 011	T 170	Tvc		λαν	Wa 1	Lou	
	1410	FIIE	290	Ash	мта	FIIE	UDII	295	нта	116	neu	пуъ	300	TTG	ush	val	neu	
	1411	7 ~~		C^~	т1.	C1++	C1		7 ~~	Dha	Mo+	N co		Dro	Dha	Wa I	λαν	
	1413	ASII	ьeu	ser.	тте	атў	ату	PT.0	ASP	1116	met	wsb	птз	PTO	FIIG	val	ush	

DATE: 02/13/2002 TIME: 10:05:13 RAW SEQUENCE LISTING -PATENT APPLICATION: US/09/830,837

Input Set : A:\EP.txt
Output Set: N:\CRF3\02132002\I830837.raw

																•
1414	305					310					315				,	320
1416	Lys	Val	Trp	Glu	Leu	Thr	Ala	Asn	Asn	Val	Ile	Met	Val	Ser	Ala	Ile
1417					325					330					335	
1419	Gly	Asn	Asp	Gly	Pro	Leu	Tyr	Gly	Thr	Leu	Asn	Asn	Pro	Ala	Asp	Gln
1420				340					345					350		
1422	Met	Asp	Val	Ile	Gly	Val	Gly	Gly	Ile	Asp	Phe	Glu	Asp	Asn	Ile	Ala
1423			355					360					365			
1425	Arg	Phe	Ser	Ser	Arg	Gly	Met	Thr	Thr	Trp	Glu	Leu	Pro	Gly	Gly	Tyr
1426		370		,			375					380				
1428	Gly	Arg	Met	Lys	Pro	Asp	Ile	Val	Thr	Tyr	Gly	Ala	Gly	Val	Arg	Gly
1429	385					390					395					400
1431	Ser	Gly	Val	Lys	Gly	Gly	Cys	Arg	Ala	Leu	Ser	Gly	Thr	Ser	Val	Ala
1432					405					410					415	
1434	Ser	Pro	Val	Val	Ala	Gly	Ala	Val	Thr	Leu	Leu	Val	Ser	Thr	Val	Gln
1435				420					425					430		
1437	Lys	Arg	Glu	Leu	Val	Asn	Pro	Ala	Ser	Met	Lys	Gln	Ala	Leu	Ile	Ala
1438			435					440			•		445			
1440	Ser	Ala	Arg	Arg	Leu	Pro		Val	Asn	Met	Phe	Glu	Gln	Gly	His	Gly
1441		450					455					460				•
1443	-	Leu	Asp	Leu	Leu	-	Ala	Tyr	Gln	Ile		Asn	Ser	Tyr	Lys	
1444						470					475					480
1446	Gln	Ala	Ser	Leu		Pro	Ser	\mathtt{Tyr}	Ile	_	Leu	Thr	Glu	Cys		\mathtt{Tyr}
1447					485					490			_		495	_
1449	Met	\mathtt{Trp}	Pro	_	Cys	Ser	Gln	Pro		Tyr	Tyr	Gly	Gly		Pro	Thr
1450				500	_	_			505		_	_	_	510		
1452	Val	Val		Val	Thr	Ile	Leu		Gly	Met	Gly	Val		GLy	Arg	Ile
1453	-	_	515	_		_		520	_	_	_		525		_	_
1455	Val		Lys	Pro	Asp	Trp		Pro	Tyr	Leu	Pro		Asn	GTĀ	Asp	Asn
1456	-1	530	1		-1	_	535	_		1	_	540	-		a	6 1
1458		GLu	vaı	Ата	Pne		Tyr	ser	ser	val		Trp		Trp	ser	
1459		T		7 1 -	a	550	a	17- 1	m1	T	555			G	Ш	560
1461	TYL	Leu	Ата	ire		rre	ser	val	THE		гуѕ	Ald	Ата	ser	575	GIU
1462	C1	т1.	77.	<i>c</i> 1 ~	565	mi a	170 1	Wat	т1.	570	17 n 1	710	Com	Dwo		C1.,
1464	GTA	rre	Ald	580	СТУ	HIS	Val	мес	585			Ата	ser	590	Ala	GIU
1465 1467		Clu	Cor		λan	C117	717	cl.,		Thr.		Thr	Val		T 011	Dro
1467	TIIT	GIU.	595	гуѕ	ASII	СТУ	нта	600	GIII	T 11T	sér	1111	605	цуэ	Leu	PIO
1470	T10	T ***		Two	T10	Tla	Dro		Dro	Dro	λνα	Cor		λνα	V=1	LOU
1471	TIE	610	Val	цуѕ	116	TIE	615	1111	PIO	FIU	ALY	620	БХЭ	лту	Val	Leu
1473	Ψrn		Gln	ጥህጉ	Иic	Δen		Δτα	Тνг	Dro	Dro		ጥኒኒዮ	Dhe	Pro	Δrσ
1474		пор	0.111	* A T	1113	630	цси	пта	111	110	635	GLY	- <u>y</u> -	1 110	110	640
1476		Δsn	T.eu	Δτα	Met		Δgn	Δsn	Pro	T.eu		Trn	Δgn	Glv	Asn	
1477	b	11011	Leu	**** 9	645	בענה	******	112P	110	650	P			O+1	655	
1479	Tle	His	Thr	Agn		Ara	Asp	Met	Tvr		His	Len	Ara	Ser		Glv
1480				660		9			665			J (4	-1~ 7	670		1
1482	Tvr	Phe	Va1		Va1	Leu	Glv	Ala		Phe	Thr	Cvs	Phe		Ala	Ser
1483	-1-		675				1	680				-1-	685	~~F		
1485	Gln	Tyr		Thr	Leu	Leu	Met		Asp	Ser	Glu	Glu		Tyr	Phe	Pro
1486		690	1				695					700		_		
		-					-	•								

DATE: 02/13/2002 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/830,837 TIME: 10:05:13

Input Set : A:\EP.txt
Output,Set: N:\CRF3\02132002\1830837.raw

1488 1489		Glu	Ile	Ala	Lys	Leu 710	Arg	Arg	Asp	Val	Asp 715	Asn	Gly	Leu	Ser	Leu 720
		-1 -	D1	a				•	m 1	a	. — –	36-4		T	17 - 3	
1491	Val	тте	Pne	ser	_	тгр	туг	ASII	Thr		vaı	мес	Arg	гуѕ		ьys
1492		_			725				_	730		_	_		735	
1494		\mathtt{Tyr}	Asp		Asn	Thr	Arg	Gln	_	Trp	Met	Pro	Asp		GLY	$GT\lambda$
1495		•		740					745					750		
1497	Ala	Asn	Ile	Pro	Ala	Leu	Asn	Glu	Leu	Leu	Ser	Val	\mathtt{Trp}	Asn	Met	Gly
1498			755					760					765			
1500	Phe	Ser	Asp	Gly	Leu	Tyr	Glu	Gly	Glu	Phe	Thr	Leu	Ala	Asn	His	Asp
1501		770					775					780	-			
1503	Met	Tyr	Tyr	Ala	Ser	Gly	Cys	Ser	Ile	Ala	Lys	Phe	Pro	Glu	Asp	Gly
1504		-	-			790	-				795				•	800
1506	Val	Val	Ile	Thr	Gln	Thr	Phe	Lvs	Asp	Gln	Glv	Leu	Glu	Val	Leu	Lvs
1507					805	•		_1 -		810	1				815	_1 -
1509	Gln	Glu	Thr	Δla		Va l	Glu	Asn	Val		Tle	Len	Glv	Len		Gln
1510		014		820	,		Olu		825		110	204		830	-1-	0
1512	T1e	Dro	Δla		G1 _V	Glv	Glv	Δra		Va 1	T:.611	Туг	Glv		Ser	Δan
1513		110	835	GIU	GLY	GLY	GIY	840	110	vui	пси	* y *	845	nsp	5.	ASH
1515		T 011	-	7 an	Con	ui o	7 ~~~		T ***0	Nan	Crra	Dha		T 011	Ton	7 an
	Cys		ASP	ASP.	ser	птъ	855	GIII	гуу	ASP	Cys		пр	ьеи	пеп	ASP
1516	» I -	850	T	a1	m	mb		m	Q1	77= 1	m 1	860	D	a	T	G a
1518		Leu	ьеи	GIII	TAL		ser	TAL	СТА	Val		PIO	PIO	Ser	ren	
1519		a	41			870	•	n	n	a	875		a 1	a	**- 1	880
1521	HIS	ser	GTÀ	ASI	-	GIN	Arg	Pro	Pro		GTA	Ата	GTÀ	ser		Thr
1522	_	-1	_		885	~1	_	•	_	890	_	~_	_	_	895	_
1524	Pro	Glu	Arg		GLu	GLY	Asn	His		His	Arg	Tyr	Ser	_	Val	Leu
1525	_	_		900	_				905					910		
1527	Glu	Ala		Leu	Gly	Asp	Pro	_	Pro	Arg	Pro	Leu		Ala	Cys	Pro
1528			915					920					925			
1530	Arg		Ser	\mathtt{Trp}	Ala	Lys	Pro	Gln	Pro	Leu	Asn			Ala	Pro	Ser
1531		930					935					940			•	
1533	Asn	Leu	Trp.	Lys	His	Gln	Lys	Leu	Leu	Ser	lle	Asp	Leu	Asp	Lys	Val
1534	945					950					955					960
1536	Val	Leu	Pro	Asn	Phe	Arg	Ser	Asn	Arg	Pro	Gln	Val	Arg	Pro	Leu	Ser
1537					965					970					975	
1539	Pro	Gly	Glu	Ser	Gly	Ala	Trp	Asp	Ile	Pro	Gly	Gly	Ile	Met	Pro	Gly
1540				980	_			_	985			_		990		
1542	Arq	Tyr	Asn	Gln	Glu	Val	Gly	Gln	Thr	Ile	Pro	Val	Phe	Ala	Phe	Leu
1543	_	-	995				_	1000					L005			
1545	Glv	Ala	Met	Val	Val	Leu			Phe	Val	Val	Gln	Ile	Asn	Lvs	Ala
1546	_	010					.015					L020				
1548			Arσ	Pro	Lvs			Lvs	Pro	Ara			Arσ	Pro	Gln	Leu
1549					_	.030	5	-1-		_	L035	-1-	3			.040
1551	$\overline{}$			Va 1			Pro	Lvs	Thr			Va1				• •
1552					.045			-10		1050						
				_					-							

--- VERIFICATION SUMMARY

PATENT APPLICATION: US/09/830,837

DATE: 02/13/2002 TIME: 10:05:15

Input Set : A:\EP.txt

Output Set: N:\CRF3\02132002\1830837.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application Number L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:525 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2 L:1028 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:4 L:1549 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6 L:1586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 L:1625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 L:1659 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 L:1698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 L:1732 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 L:1771 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 L:1807 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 L:1846 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 L:1904 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 L:1926 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 L:1959 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18L:2292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 L:2315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 L:2601 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74 L:2624 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 L:2647 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76